

10/728,357

03217/3762-001 US

IN THE CLAIMS

1. (Original) A method of inducing a permanent change in the neurological development of a rodent, comprising treatment of a rodent during the second postnatal week with low doses of a kainate receptor agonist, wherein after treatment with said kainate receptor agonist the rodent exhibits reproducible seizure-like symptoms when exposed to a mild to moderate stressor that would not normally elicit a seizure.
2. (Original) A method according to claim 1, wherein the treatment comprises administration of the kainate receptor agonist each day for a period extending from about postnatal day 8 to about postnatal day 14.
3. (Original) A method according to claim 2, wherein the kainate receptor agonist is selected from the group consisting of domoic acid and kainic acid.
4. (Original) A method according to claim 1, wherein the rodent is a rat, and the treatment comprises administration of the kainate receptor agonist each day for a period extending from about postnatal day 8 to about postnatal day 14.
5. (Original) A method according to claim 4, wherein the kainate-receptor agonist is domoic acid and the domoic acid is administered subcutaneously in a single daily dose ranging from about 5 to 50 g/kg.

10/728,357

03217/3762-001 US

6. (Original) A method according to claim 4, wherein the kainate-receptor agonist is domoic acid and the domoic acid is administered subcutaneously in a single daily dose ranging from about 5 to 20 g/kg.
7. (Original) A method according to claim 4, wherein the kainate receptor agonist is kainic acid and the kainic acid is administered subcutaneously in a single daily dose ranging from about 10 to 100 g/kg.
8. (Original) A method according to claim 4, wherein the kainate receptor agonist is kainic acid and the kainic acid is administered subcutaneously in a single daily dose ranging from about 20 to 50 g/kg.
9. (Withdrawn) A rodent which has been treated with low doses of a kainate receptor agonist during the second postnatal week, resulting in a permanent change in the neurological development of said rodent, wherein the rodent exhibits reproducible seizure-like symptoms when exposed to a mild to moderate stressor that would not normally elicit a seizure.
10. (Withdrawn) A rodent according to claim 9, wherein said treatment comprises administration of the kainate receptor agonist each day for a period extending from about postnatal day 8 to about postnatal day 14.

10/728,357

03217/3762-001 US

11. (Withdrawn) A rodent according to claim 10, wherein said kainate receptor agonist is selected from the group consisting of domoic acid and kainic acid.
12. (Withdrawn) A rodent according to claim 9, wherein the rodent is a rat and the treatment comprises administration of the kainate receptor agonist each day for a period extending from about postnatal day 8 to about postnatal day 14.
13. (Withdrawn) A rodent according to claim 12, wherein the kainate-receptor agonist is domoic acid and the domoic acid is administered subcutaneously in a single daily dose ranging from about 5 to 50 g/kg.
14. (Withdrawn) A rodent according to claim 12, wherein the kainate receptor agonist is kainic acid and the kainic acid is administered subcutaneously in a single daily dose ranging from about 10 to 100 g/kg.
15. (Withdrawn) A rodent according to claim 9, wherein the mild to moderate stressor is selected from the group consisting of novel environments, low dose chemical convulsants, audiogenic stimuli and temperature stress.
16. (Withdrawn) A rodent according to claim 9, wherein the mild to moderate stressor is a novel environment selected from the group

10/728,357

03217/3762-001 US

consisting of the Morris Water Maze (MWM), the Novel Water Maze (NWM), or an open field arena.

17. (Withdrawn) A rodent according to claim 9, wherein the seizure-like symptoms are characterized by a combination of abnormal behaviours including hunched body posture, facial clonus, mastication with tongue-protrusion, repetitive head extensions and bobbing, repetitive eye blinking/squinting and vibrissae and ear twitching.
18. (Withdrawn) A rodent according to claim 12, wherein in adulthood said rodent exhibits elevated serum oxytocin concentrations and increased expression of hippocampal brain-derived neurotrophic factor (BDNF), with no significant increase in neuropeptide Y (NPY) expression levels.
19. (Withdrawn) Use of a rodent as defined in claim 9, for studying the efficacy of a compound or pharmaceutical preparation for treating epilepsy or other seizure-related disorders.
20. (Withdrawn) A method of assaying the anti-epileptic efficacy of a compound or pharmaceutical composition, wherein said method comprises:
 - administering a compound or pharmaceutical composition postulated as having potential as an agent for treating epilepsy or other seizure-related disorders to a rodent of claim 9,
 - exposing said rodent to a form of mild to moderate stress, and
 - measuring the rate of occurrence and/or severity of any seizure

10/728,357

03217/3762-001 US

induced in said rodent by exposure to said stress,
herein a decreased rate of occurrence and/or severity of seizure is
associated with anti-epileptic efficacy of the compound or
pharmaceutical composition.